[redacted]

TEST REPORT ON CHIP FORMAT PRINTER

STATINTL

Prepared by: [redacted]

Quality & Reliability Dept.

Approved by: [redacted]

STATINTL

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NOTICE

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation of conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

ADMINISTRATIVE DATA

Purpose of Test	-	Acceptance STATINTL
Manufacturer	-	[redacted]
Manufacturer's Part Number	-	
Manufacturer's Serial Number	-	001
Number of Specimens Tested	-	One (1)
Applicable Specifications and Documents	-	Specification of a Chip Format Printer 1 May 1967, Specification No. TS 1445-70. Amendment I - Specification of a Chip Format Printer, 22 January 1968, Spec. No. TS 1445-70. Amendment II - Specification of a Chip Format Printer, 8 March 1968, Spec. No. TS 1445-70.
STATINTL		[redacted] Drawing No. 1137A1, CFP Assembly [redacted] Drawing No. 1137SD-1 thru SD-13 CFP Schematic
STATINTL		[redacted] Specification Control Drawing No. 1137 INST. 1
Security Classification	-	Unclassified
Date Test Started	-	March 19, 1968
Date Test Completed	-	March 19, 1968
[redacted] Job Number	-	1445-045

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SCOPE

This report covers the results of subjecting the Chip Format Printer to the Acceptance Test as outlined in the Test Specification and Procedure.

All data pertinent to these tests are covered in this report.

The following tests are covered in this report:

A. Electrical-Mechanical Visual Inspection

B. Performance

C. Positional Accuracy

D. Automatic Chip Counter and Character Generator

E. Parity Error

F. Automatic Exposure Control

G. Resolution

H. Final Photographic Check

GENERAL INFORMATION

A. CALIBRATION

All test equipment was verified for proper calibration prior to use and no equipment was used if expiration date was reached.

B. VOLUME

The volume of the test facilities was such that the bulk of the equipment under test did not interfere with the generation and maintenance of test conditions.

C. STANDARD CONDITIONS

Unless otherwise stated, these tests were accomplished under standard conditions. Standard conditions are defined as:

1) Temperature - Room Ambient (70°F, ±3°F)

2) Altitude - Normal Ground

3) Vibration - None

4) Humidity - Room Ambient, up to 85% Relative Humidity

A. ELECTRICAL-MECHANICAL VISUAL INSPECTION

In accordance with Specification No. TS 1445-70.

RECORD DATA SHEET No. 1

ELECTRICAL MECHANICAL VISUAL INSPECTION

Applicable Par. of Spec.		Accepted Date and Initiated
5.1.1	1. Dimensional check/per installation Dwg. 1137-Inst-1	3/28
		3/28
5.1.3	2. Name Plates	3/28
5.1.5	3. Electrical Inspection	3/28
5.1.5	4. Mechanical Inspection	

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B. PERFORMANCE

In accordance with Specification No. TS 1445-70.

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RECORD DATA SHEET No. 2

PERFORMANCE SPECIFICATION

Applicable Par. of Spec.		Procedure Check
5.2.1	1. Initial Set-Up	✓
5.2.2	2. Main Power and Indicator Test	✓
5.2.3	3. Malfunction Check	
5.2.3.1	a) Chip Cass Empty	✓
5.2.3.2	b) Data Mast Empty	✓
5.2.3.3	c) Air Indicator	✓
5.2.3.4	d) Liquid Indicator	✓
5.2.3.5	e) Vacuum Indicator	✓
5.2.3.6	f) Magazine Position & Mask Size	✓
5.2.4	4. Manual Controls	
5.2.4.1	a) Azimuth Slew	✓
5.2.4.2	b) Azimuth Position	✓
5.2.4.3	c) Y Operation	✓
5.2.4.4	d) X Operation (Upper)	✓
5.2.4.5	e) X Operation (Lower)	✓
5.2.4.6	f) Film Footage Counter (Upper)	15.0' 49.8'
	g) Film Footage Counter (Lower)	15.0' 50.0'

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C. POSITIONAL ACCURACY

In accordance with Specification No. TS 1445-70.

RECORD DATA SHEET NO. 3

POSITIONAL ACCURACY TESTS

Applicable Par. of Spec.			θ error	E_r
5.3.1	1.	Positional accuracy test		
5.3.1.1		Lower Channel	.234°	.643 mm
5.3.1.2		Upper Channel	.043°	.596 mm

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			X error	Y error	θ error
5.3.2	2.	Mensuration Counters			
5.3.2.1		Lower Channel	0	.2	.1
5.3.2.2		Upper Channel	.1	.2	.3

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D. AUTOMATIC CHIP COUNTER AND CHARACTER GENERATOR

In accordance with Specification No. TS 1445-70.

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RECORD DATA SHEET NO. 4

AUTOMATIC CHIP COUNTER AND CHARACTER GENERATOR

Applicable Par. of Spec.			
5.3.3	1.	Automatic Chip Counter and Character Generator	
		a) Prints Required Counter	Read 18
		Actual Chips Printed	Counter 18
		b) Alpha numerics complete and legible.	Check ✓
		c) Digital displays complete and legible.	Check ✓
		Each bit shall have its edge sharp and clear with contour varying not more than .010" max. from mean edge.	Check ✓
		d) Digital displays in a straight line array both vertically and horizontally.	Check ✓

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E. PARITY ERROR

In accordance with Specification No. TS 1445-70.

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RECORD DATA SHEET NO. 5

PARITY ERROR

Applicable Para. of Spec.			
5.3.4	1.	Parity Error:	
		a) Vertical parity error	Check ✓
		b) Tape Reader Stops	Check ✓
		c) Horizontal parity error	Check ✓
		d) Does Tape Reader STOP	Check ✓

STATINTL [redacted]

STATINTL [redacted]

F. AUTOMATIC EXPOSURE CONTROL

In accordance with Specification No. TS 1445-70.

RECORD DATA SHEET NO. 6

AUTOMATIC EXPOSURE CONTROL

Applicable Para. of Spec.			Output Density
5.3.5.1	1. Automatic Exposure Control normal view		
	Input (a) .3 density	1.	.82 — .88
		2.	— (NO CHIP) 4/
	Input (b) .9 density	1.	.64 — .72
		2.	.62 — .68
	Input (c) 1.5 density	1.	.57 — .62
		2.	.60 — .66
	Output density shall be ND 0.7 ± 0.2 excluding development tolerance.		
5.3.5.2	2. Auxiliary Exposure Control		
	Input (a) .3 density	1.	.78 — .86
		2.	.78 — .88
	Input (b) .9 density	1.	.56 — .68
		2.	.58 — .66
	Input (c) 1.5 density	1.	.65 — .70
		2.	.60 — .78
	Same tolerance as above....		

STATINTL [redacted]

RECORD DATA SHEET NO. 6 (cont'd)

Applicable Para. of Spec.			Output Density
3.	Exposure Select Buttons		
	Input .9 density	+ 3 FCI 313	SUPERIMPOSED ON +2
		+ 2 FCI 313	✓
		+ 1 FCI 313	✓
		Normal	
		- 1 FCI 313	✓
		- 2 FCI 313	✓
		- 3 FCI 313	✓

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5.3.5.4	Evenness of Illumination (Tol. = ±20%)	
1.	Average Output Chip Density	.75
	Max. Density	.78
	Min. Density	.72
	Illumination Variation	.06
2.	Average Output Chip Densities	.81
	Max. Density	.83
	Min. Density	.79
	Illumination Variation	.04

[redacted]

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[redacted]

G. RESOLUTION

In accordance with Specification No. TS 1445-70.

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RECORD DATA SHEET NO. 7

RESOLUTION

Applicable Para. of Spec.			
5.3.6	Resolution		
	Target	Resolution X Axis/Y Axis	STATINTL [redacted]
	Upper Right	287 / 323	
	Lower Right	362 / 362	
	Center	228 / 323	
	Upper Left	323 / 362	
	Lower Left	203 / 323	
	Average X Axis/Y Axis	281 / 339	
	Average X and Y Axis	310	

5.3.7	Security Class		STATINTL
	Security Messages Present and Legible	Check ✓	[redacted]

H. FINAL PHOTOGRAPHIC CHECK

In accordance with Specification No. TS 1445-70

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RECORD DATA SHEET NO. 8

FINAL PHOTOGRAPHIC CHECK

1. Accuracy of point printed.

Tape Input Valves			Mensuration Readout			Checked Dim.			Error	
X	Y	∅	X	Y	∅	X	Y	∅	Y	∅
132.8	136.2	37.9°	132.8	136.0	38.0°	.011	.461	.856°	.261	.656°
24.4	18.3	61.1°	24.4	18.2	61.2°	.219	059	.005°	[redacted]	

2. Security Classification. [redacted] STATINTL

Input No. 10 Output No. 10 STATINTL

Print Quality Good ✓ Fair ____ Poor ____

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3. Digital Data. [redacted]

Readin FULL LINE Readout FULL LINE

STATINTL Quality Comments FAIR

4. Alpha-Numerical [redacted]

Readin FULL LINE Readout FULL LINE

STATINTL Quality Comments FAIR

5. Exposure Considerations: [redacted]

As this test is somewhat subjective, the following points shall be considered: STATINTL

(a) Are densities reproduced within the limitations of the output film? OK

(b) Are the details in the shadows lost? OK

(c) Are the details in the highlights blocked up? OK

(d) Check film for scratches, etc. OK

[redacted]

6. Number of prints per minute 10.

STATINTL [redacted]

SUMMARY OF TEST RESULTS

A. The Chip Format Printer failed to meet the requirements of Paragraphs: 5.3.1.1, 5.3.1.2, 5.3.5.3 and 5.3.8.

1) Reference Paragraph 5.3.1.1. The azimuth error recorded was 0.034 degrees in excess of specification limits; the Er error was 0.283 mm in excess of specification limits.

2) Reference Paragraph 5.3.1.2. The Er error was 0.236 mm in excess of specification limits.

3) Reference Paragraph 5.3.5.3. The density in the vicinity of the shoulders of the curves representing the +2 and +3 ND filters are superimposed.

4) Reference Paragraph 5.3.8. In one of two test points evaluated the "Y" and azimuth measurements exceeded the specification limits by 0.261 mm and 0.656 degrees, respectively.

B. The unit's chip ejection transport mechanism malfunctioned during three phases of the functional testing.

[redacted]

STATINTL

To: STATINTL [redacted]

cc:

STATINTL [redacted] Contracts

Subject: Project "105"
Acceptance Test Deviations to
TS 1445-70 and Amendments
No. I and II

From: STATINTL [redacted] 2 April 1968

The above subject Acceptance Test Deviations to TS 1445-70 and Amendments No. I and II have been unconditionally accepted and approved by the customer.

STATINTL [redacted]

SJO/cc

21 March 1968

ACCEPTANCE TEST DEVIATIONS

TS 1445-70 and Amendments I & II

1) Reference paragraphs 5.3.1.1. The azimuth error recorded was 0.034 degrees in excess of specification limits; the E_r error was 0.283 mm. in excess of specification limits.

2) Reference paragraph 5.3.1.2. The E_r error was 0.236 mm in excess of specification limits.

3) Reference paragraphs 5.3.5.3. The density in the vicinity of the shoulders of the curves representing the +2 and +3 ND filters are superimposed.

4) Reference paragraph 5.3.8. In one of two test prints evaluated, the "Y" and aziumth measurements exceeded the specification limits by 0.261 mm and 0.656 degrees respectively.

5) The excessive errors described in paragraphs 1, 2, and 4 above are due, in part, to film instability and data reduction errors. The above deviations are considered to be acceptable.

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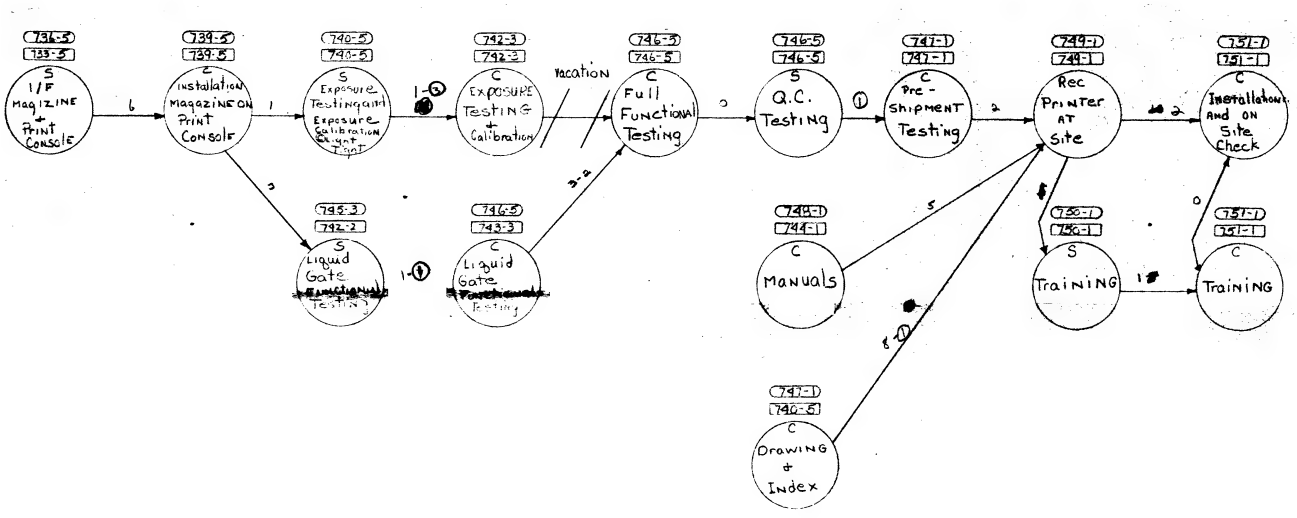
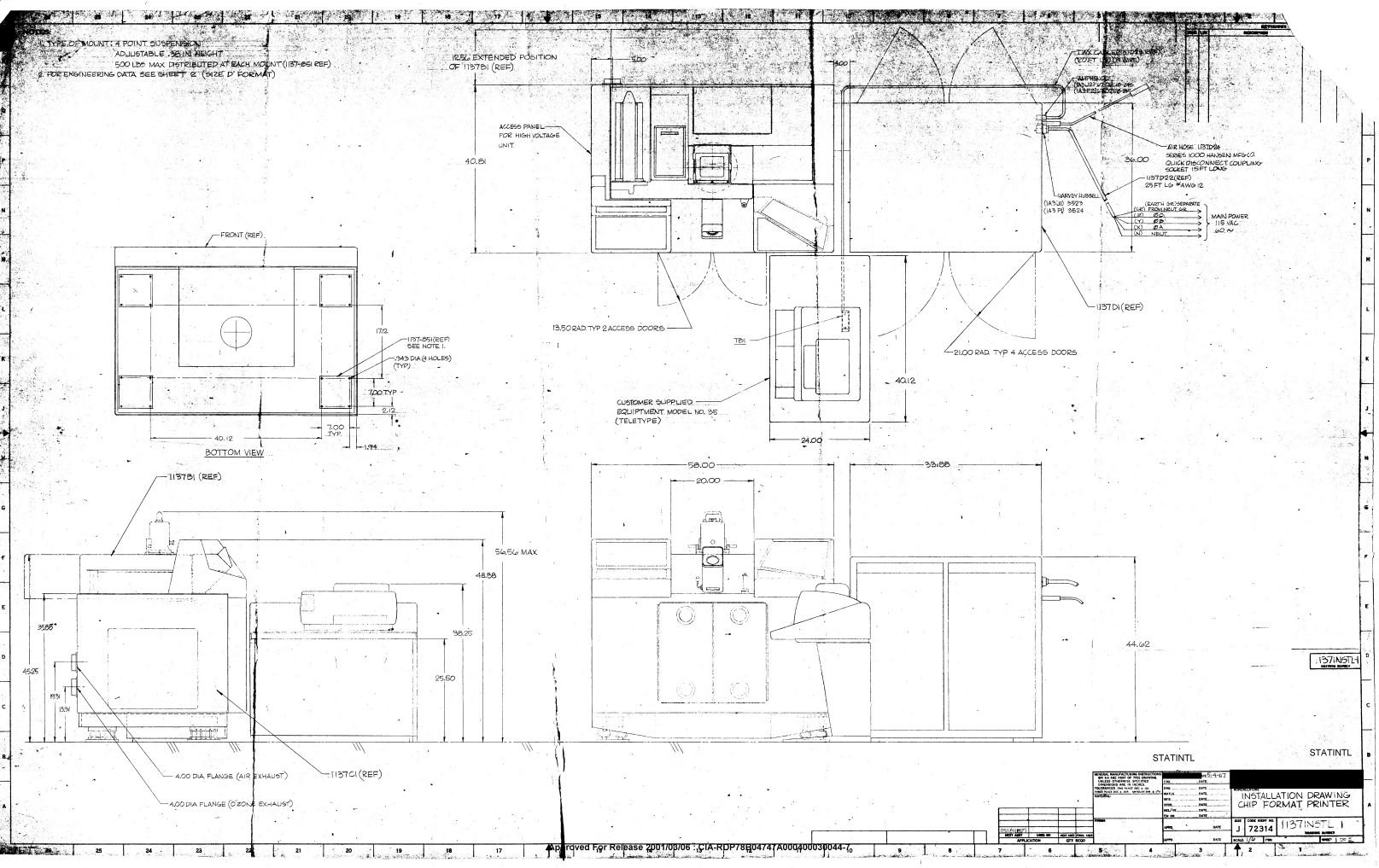
[redacted]



CHIP PRINTER
PROJ. 1105
JOB 1995 5/1/67

734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751
MAY					JUNE				JULY				AUG.				



ZONE	LTR	REVISIONS DESCRIPTION	DATE	APPROVED

NOTES:
1. SHEET 1 IS A "J" SIZE FORMAT

STATINTL

I. INSTRUCTIONS
- A. NAME OF INSTRUMENT: CHIP FORMAT PRINTER
- B. MANUFACTURER: [redacted]
- C. CONTRACT NUMBER: ____
- D. DELIVERY DATE: TENTATIVE: 5/15/67 FINAL: ____

II. PHYSICAL FEATURES
- A. SUB-ASSEMBLIES:
  1. NUMBER OF SUB-ASSEMBLIES: 80
  2. LARGEST SUB-ASSEMBLY: WEIGHT 400 LBS: 28 " H X 32 " W X 38 " D
  3. HEAVIEST SUB-ASSEMBLY: WEIGHT 400 LBS: 28 " H X 32 " W X 38 " D
- B. ASSEMBLED INSTRUMENT:
  1. NUMBER OF MAJOR COMPONENTS: 4
  2. LARGEST COMPONENT: WEIGHT 1750 LBS: 48.5" H X 58 " W X 40.5" D
  3. HEAVIEST COMPONENT: WEIGHT 1750 LBS: 48.5" H X 58 " W X 40.5" D
  4. TOTAL FLOOR SPACE REQUIRED AFTER ASSEMBLY, INCLUDING MAINTENANCE ACCESS SPACE. 8 FT. 6 IN. HIGH x 12 FT. 0 IN. WIDE x 9 FT. 0 IN. DEEP.
  5. TOTAL WEIGHT OF ASSEMBLED INSTRUMENT: 3000 LBS. *
- C. TYPE OF BASE OF MOUNT: FLAT ____; 3-POINT SUSPENSION ____; 4-POINT SUSPENSION X
- D. DOES THE INSTRUMENT HAVE BUILT-IN MOBILITY? YES ____ NO X
- E. IS THE INSTRUMENT PARTICULARLY SENSITIVE TO VIBRATION? YES ____ NO X
  WILL THE INSTRUMENT GENERATE VIBRATION YES ____ NO X
- F. ARE ANY SPECIAL OR UNUSUAL TOOLS OR FIXTURES NECESSARY OR ADVISEABLE FOR THE INSTALLATION OF THE MAINTENANCE OF THIS INSTRUMENT? YES X NO ____. IF "YES," PLEASE DESCRIBE: FORK LIFT WITH ONE TON CAPACITY FOR TRANSPORTING UNITS DURING INSTALLATION.

III. UTILITIES
- A. ELECTRICAL:

		AC	DC
1.	VOLTAGE	208 VOLTS ± 115 VOLTS	____ VOLTS ± ____
2.	CURRENT	20 AMPS/PHASE	____ AMPS
3.	FREQUENCY	60 CPS	
4.	NR. OF PHASES	3 PH	
5.	NR. OF WIRES	5	
6.	POWER REQUIRED	8K WATTS MAX.	____ WATTS
7.	POWER FACTOR	0.8 (LAGGING) MIN.	

  8. TYPE OF OUTLET: TWO PRONG ____; THREE PRONG ____; TWIST LOCK; PERM. ____ 5 PIN
  9. TYPE OF GROUND: BUILDING CONDUIT X; DIRECT EARTH GROUND X.
  10. SHOULD THE INSTRUMENT BE SHIELDED, EITHER FROM EXTERNAL ELECTROMAGNETIC SIGNALS OR TO PREVENT INTERFERENCE WITH OTHER EQUIPMENT? YES X NO ____. IF "YES," TO WHAT EXTENT? POWER LINES SHOULD HAVE RADIO INTERFERENCE FILTER, RANGE 100Kc to 5Mc, ATTENUATION > 40 db

* TOTAL INCLUDING TELETYPE

Russ - Talked to our Logistics people about this requirement - they feel the electrical installation is straightforward and nothing exceptional - that the RFI is nothing more than simple line filters. Any questions you can bring along if on the 18th to FSDS. [redacted]

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- B. AIR CONDITIONING:
  1. DESIRED ENVIRONMENT: ROOM AIR TEMPERATURE OF 65°F ± 80°F AND RELATIVE HUMIDITY OF 30% ± 60%.
  2. INPUT AIR: IS A DIRECT CONNECTION NECESSARY? YES ____ NO X; ADVISEABLE? YES ____ NO ____; IF "YES", WHAT IS THE CONNECTOR TYPE AND SIZE? ____ RECOMMENDED INPUT AIR TEMPERATURE ____ °F ± ____ °F. RELATIVE HUMIDITY ____ % ± ____ %. IF INPUT AIR MUST BE FILTERED, WHAT IS THE MAXIMUM PARTICLE SIZE IN MICRONS? ____ WHAT PARTICLE COUNT? ____ /CU. FT.
  3. OUTPUT AIR: IS A DIRECT CONNECTION TO THE RETURN AIR DUCT NECESSARY? YES X NO ____. ADVISEABLE? YES X NO ____. CONNECTOR TYPE AND SIZE? ** 4 INCH DUCTS. OUTPUT AIR TEMPERATURE 65°F ± 90°F. RELATIVE HUMIDITY 30% ± 100%. OUTPUT HEAT ____ BTU/HR. FLOW OF 100 CFM. IS OUTPUT AIR TOXIC? YES X NO ____; NOXIOUS? YES X NO ____.
  ** TWO REQUIRED. IT IS PREFERABLE THAT THEY BE VENTED SEPARATELY.
- C. PLUMBING:
  1. IS WATER REQUIRED? YES ____ NO X; PRESSURE ____ PSIG, FLOW ____ GPM.
  2. TYPE OF WATER REQUIRED:
     TAP ____ °F ± ____ °F   DEIONIZED ____ °F ± ____ °F
     TEMPERED ____ °F ± ____ °F   FILTERED ____ °F ± ____ °F
     IF FILTERED, GIVE MAXIMUM PERMISSIBLE PARTICLE SIZE IN MICRONS AND THE MAXIMUM PERMISSIBLE COUNT.
  3. PIPE REQUIRED:
     GALVANIZED ____   COPPER ____   SIZE ____
     STAINLESS STEEL ____   PLASTIC ____   TYPE OF CONNECTOR ____
  4. FLOOR DRAIN:
     DIAMETER OF DRAIN ____   GALVANIZED DRAIN? ____
     PLASTIC DRAIN? ____   GLASS DRAIN? ____
  5. ARE ANY CHEMICAL SOLUTIONS USED IN THE DEVICE? YES X NO ____. IF "YES," STATE THE NATURE OF THE SOLUTION(S), PERMISSIBLE TEMPERATURE RANGE, FLOW RATE IN APPROPRIATE UNITS AND THE FILTRATION NECESSARY FOR EACH SOLUTION FREON 113 and TETRACHLOROETHYLENE (20% - 80%). ***
  6. SIZE OF PIPES AND CONNECTORS ____.
  *** DIRECT PLUMBING HOOKUP NOT REQUIRED; CHEMICAL SUMP IS MANUAL FILL
- D. COMPRESSED AIR:
  IS COMPRESSED AIR REQUIRED? YES X NO ____. WATER FREE? X OIL FREE? X TYPE AND SIZE OF CONNECTOR? ****. PRESSURE 60 PSIG. FLOW IN CFM MAXIMUM 50, MINIMUM 0, AVERAGE 25.
- E. VACUUM:
  IS VACUUM REQUIRED? YES ____ NO X. PRESSURE ____ PSIA OR (INCHES OF WATER) (MILLIMETERS OF MERCURE). DISPLACEMENT IN CFM, MAXIMUM ____, MINIMUM ____, AVERAGE ____. TYPE AND SIZE OF CONNECTORS ____.
- F. PERIPHERAL DEVICES:
  WILL THE INSTRUMENT BE CONNECTED TO ANY PERIPHERAL DEVICES SUCH AS A COMPUTER OR DATA INPUT OR DATA OUTPUT DEVICE? YES ____ NO X. IF "YES," GIVE, IN DETAIL, THE NATURE OF THE CONNECTION TO THE PERIPHERAL DEVICE SUCH AS COAXIAL CABLE, MULTIPLE WIRE CONNECTOR, ETC.

IV. REMARKS
- A. USE ADDITIONAL SHEETS IF MORE SPACE IS REQUIRED FOR ENVIRONMENTAL CONDITIONS OR UTILITIES NOT MENTIONED ABOVE.
- B. SUBMIT THREE TYPED COPIES OF THE COMPLETED FORM TO THE TECHNICAL REPRESENTATIVE.

**** SERIES 1000 (HANSEN MFG. CO.) QUICK CONNECT AIR HOSE COUPLING SOCKET SHOULD BE WITHIN 10 FT. OF REAR UNIT.

STATINTL

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1137 INSTL 1
DRAWING NUMBER
SH 2

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
1137A1 REF			
APPLICATION		QTY REQD	

GENERAL MANUFACTURING INSTRUCTIONS SPI 4.0 ARE PART OF THIS DRAWING. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: TWO PLACE DEC ± .02. THREE PLACE DEC ± .005. ANGULAR DIM. ± 1°0'

MATERIAL:

FINISH:

[redacted] DATE 5-4-67
CHK ____ DATE ____
CH DR ____ DATE ____
ENG ____ DATE ____
NATLS ____ DATE ____
MFG ____ DATE ____
STDS ____ DATE ____
REL ____ DATE ____
VE ____ DATE ____
APPD ____ DATE ____
APPD ____ DATE ____

[redacted]

NOMENCLATURE: INSTALLATION DRAWING CHIP FORMAT PRINTER

SIZE: D | CODE IDENT NO.: 72314 | DRAWING NUMBER: 1137 INSTL 1

SCALE: NONE | SHEET 2 OF 2

NOTES:
1. SHEET 1 IS A "J" SIZE FORMAT

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

STATINTL

I. INSTRUMENT
A. NAME OF INSTRUMENT: CHIP FORMAT PRINTER
B. MANUFACTURER: [redacted]
C. CONTRACT NUMBER: _____
D. DELIVERY DATE: * TENTATIVE: 5/15/67 FINAL: _____

II. PHYSICAL FEATURES
A. SUB-ASSEMBLIES:
1. NUMBER OF SUB-ASSEMBLIES: 80
2. LARGEST SUB-ASSEMBLY: WEIGHT 400 LBS: 28 "H X 32 "W X 38 "D
3. HEAVIEST SUB-ASSEMBLY: WEIGHT 400 LBS: 28 "H X 32 "W X 38 "D

B. ASSEMBLED INSTRUMENT:
1. NUMBER OF MAJOR COMPONENTS: 4
2. LARGEST COMPONENT: WEIGHT 1750 LBS: 48.5" H X 56 " W X 40.5" D
3. HEAVIEST COMPONENT: WEIGHT 1750 LBS: 48.5" H X 56 " W X 40.5" D
4. TOTAL FLOOR SPACE REQUIRED AFTER ASSEMBLY, INCLUDING MAINTENANCE ACCESS SPACE. 8 FT. 4 IN. HIGH x 12 FT. 0 IN. WIDE x 9 FT. 0 IN. DEEP.
5. TOTAL WEIGHT OF ASSEMBLED INSTRUMENT: 3000 LBS. *

C. TYPE OF BASE OF MOUNT: FLAT ____; 3-POINT SUSPENSION ____; 4-POINT SUSPENSION X

D. DOES THE INSTRUMENT HAVE BUILT-IN MOBILITY? YES _____ NO X

E. IS THE INSTRUMENT PARTICULARLY SENSITIVE TO VIBRATION? YES _____ NO X
WILL THE INSTRUMENT GENERATE VIBRATION YES _____ NO X

F. ARE ANY SPECIAL OR UNUSUAL TOOLS OR FIXTURES NECESSARY OR ADVISEABLE FOR THE INSTALLATION OF THE MAINTENANCE OF THIS INSTRUMENT? YES X NO ____.
IF "YES" PLEASE DESCRIBE: FORK LIFT WITH ONE TON CAPACITY FOR TRANSPORTING UNITS DURING INSTALLATION.

III. UTILITIES
A. ELECTRICAL:

	AC	DC
1. VOLTAGE	208 VOLTS ± 115 VOLTS	_____ VOLTS ± _____
2. CURRENT	20 AMPS/PHASE	_____ AMPS
3. FREQUENCY	60 CPS	
4. NR. OF PHASES	3 PH	
5. NR. OF WIRES	5	
6. POWER REQUIRED	8K WATTS MAX.	_____ WATTS
7. POWER FACTOR	0.5 (LAGGING) MIN.	
8. TYPE OF OUTLET:	TWO PRONG ____; THREE PRONG ____; TWIST LOCK, PERM. ____; 5 PIN ____	
9. TYPE OF GROUND:	BUILDING CONDUIT X; DIRECT EARTH GROUND X.	

10. SHOULD THE INSTRUMENT BE SHIELDED, EITHER FROM EXTERNAL ELECTROMAGNETIC SIGNALS OR TO PREVENT INTERFERENCE WITH OTHER EQUIPMENT?
YES X NO ____. IF "YES," TO WHAT EXTENT? POWER LINES SHOULD HAVE RADIO INTERFERENCE FILTER, RANGE 100Kc to 5Mc, ATTENUATION > 40 db

* TOTAL INCLUDING TELETYPE

B. AIR CONDITIONING:
1. DESIRED ENVIRONMENT: ROOM AIR TEMPERATURE OF 65°F ± 80°F AND RELATIVE HUMIDITY OF 30% ± 60%.
2. INPUT AIR: IS A DIRECT CONNECTION NECESSARY? YES ____ NO X
ADVISABLE? YES ____ NO ____. IF "YES", WHAT IS THE CONNECTOR TYPE AND SIZE? _____ RECOMMENDED INPUT AIR TEMPERATURE _____ °F ± _____ °F, RELATIVE HUMIDITY _____ ± _____ %. IF INPUT AIR MUST BE FILTERED, WHAT IS THE MAXIMUM PARTICLE SIZE IN MICRONS? _____
WHAT PARTICLE COUNT? _____/CU. FT.
3. OUTPUT AIR: IS A DIRECT CONNECTION TO THE RETURN AIR DUCT NECESSARY?
YES X NO ____. ADVISABLE? YES X NO ____. CONNECTOR TYPE AND SIZE? ** 4 INCH DUCTS. OUTPUT AIR TEMPERATURE 65°F ± 90°F, RELATIVE HUMIDITY 30% ± 100%. OUTPUT HEAT ____BTU/HR. FLOW OF 100 CFM. IS OUTPUT AIR TOXIC? YES X NO ____ NOXIOUS? YES X NO ____.
** TWO REQUIRED. IT IS PREFERABLE THAT THEY BE VENTED SEPARATELY.

C. PLUMBING:
1. IS WATER REQUIRED? YES ____ NO X ; PRESSURE ____PSIG, FLOW ____GPM.
2. TYPE OF WATER REQUIRED:
TAP _____°F ± _____°F DEIONIZED _____°F ± _____°F
TEMPERED _____°F ± _____°F FILTERED _____°F ± _____°F
IF FILTERED, GIVE MAXIMUM PERMISSIBLE PARTICLE SIZE IN MICRONS AND THE MAXIMUM PERMISSIBLE COUNT.
3. PIPE REQUIRED:
GALVANIZED ____ COPPER _____ SIZE _____
STAINLESS STEEL ____ PLASTIC _____ TYPE OF CONNECTOR _____
4. FLOOR DRAIN:
DIAMETER OF DRAIN _____ GALVANIZED DRAIN? _____
PLASTIC DRAIN? GLASS DRAIN?
5. ARE ANY CHEMICAL SOLUTIONS USED IN THE DEVICE? YES X NO ____. IF "YES," STATE THE NATURE OF THE SOLUTION(S), PERMISSIBLE TEMPERATURE RANGE, FLOW RATE IN APPROPRIATE UNITS AND THE FILTRATION NECESSARY FOR EACH SOLUTION FREON 113 and TETRACHLOROETHYLENE (20% - 80%). ***
6. SIZE OF PIPES AND CONNECTORS _____
*** DIRECT PLUMBING HOOKUP NOT REQUIRED; CHEMICAL SUMP IS MANUAL FILL.

D. COMPRESSED AIR:
IS COMPRESSED AIR REQUIRED? YES X NO ____. WATER FREE? X OIL FREE? X
TYPE AND SIZE OF CONNECTOR? ****. PRESSURE 60 PSIG. FLOW IN CFM MAXIMUM 50, MINIMUM 0, AVERAGE 25.

E. VACUUM:
IS VACUUM REQUIRED? YES ____ NO X ; PRESSURE _____ PSIA OR (INCHES OF WATER) (MILLIMETERS OF MERCURE). DISPLACEMENT IN CFM, MAXIMUM _____, MINIMUM _____, AVERAGE _____. TYPE AND SIZE OF CONNECTORS _____.

F. PERIPHERAL DEVICES:
WILL THE INSTRUMENT BE CONNECTED TO ANY PERIPHERAL DEVICES SUCH AS A COMPUTER OR DATA INPUT OR DATA OUTPUT DEVICE? YES ____ NO X . IF "YES," GIVE, IN DETAIL, THE NATURE OF THE CONNECTION TO THE PERIPHERAL DEVICE SUCH AS COAXIAL CABLE, MULTIPLE WIRE CONNECTOR, ETC.

IV. REMARKS
A. USE ADDITIONAL SHEETS IF MORE SPACE IS REQUIRED FOR ENVIRONMENTAL CONDITIONS OR UTILITIES NOT MENTIONED ABOVE.
B. SUBMIT THREE TYPED COPIES OF THE COMPLETED FORM TO THE TECHNICAL REPRESENTATIVE.
**** SERIES 1000 (HANSEN MFG. CO.) QUICK CONNECT AIR HOSE COUPLING SOCKET SHOULD BE WITHIN 10 FT. OF REAR UNIT.

1137INSTL 1
DRAWING NUMBER
SH 2

STATINTL STATINTL

1137A1 REF			
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QTY REQD	

GENERAL MANUFACTURING INSTRUCTIONS SPI 4.0 ARE PART OF THIS DRAWING. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: TWO PLACE DEC ± .02, THREE PLACE DEC ± .005, ANGULAR DIM ± 1°
MATERIAL:
FINISH:

8-4-67
CHK DATE
CH ENG DATE
ENG DATE
MATLS DATE
MFG DATE
STDS DATE
REL DATE
VE DATE
APPD DATE
APPD DATE

[redacted]
INSTALLATION DRAWING
CHIP FORMAT PRINTER

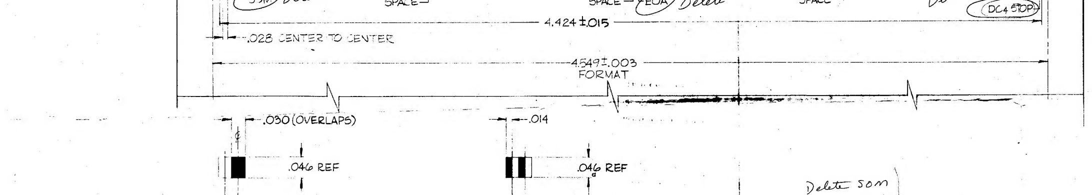
SIZE	CODE IDENT NO.	1137INSTL 1
D	72314	DRAWING NUMBER

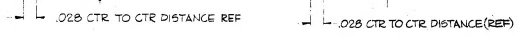
SCALE: NONE SHEET 2

NOTES:

1. PER THE AMERICAN STANDARD CODE FOR INFORMATION INTERCHANGE

ZONE	LTR	DESCRIPTION	ECN NO.	DATE	APPROVED
REVISIONS					





A.S.C.I. CODE DOT SIZE

TIMING DOT

Delete SOM
EOA
EOT

Would like ~~DC-4~~ EOT. Stop. Will look into—
Now 40
26 – A-Z
10 – 0-9
4 – +, –, ., blank
40

Will look into ~~DC-4~~ EOT, making 41. If same cost + effort will add DC-4, EOA + SOM.

STATINTL

STATINTL

1137-71
DRAWING NUMBER

GENERAL MANUFACTURING INSTRUCTIONS SPI 4.0 ARE PART OF THIS DRAWING. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES: TWO PLACE DEC ± .02. THREE PLACE DEC ± .005. ANGULAR DIM. ± 1°0'

MATERIAL:

FINISH:

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QTY REQD	

[redacted] DATE 4-20-66
CHK ___ DATE ___
ENG ___ DATE ___
MATLS ___ DATE ___
MFG ___ DATE ___
STDS ___ DATE ___
REL/VE ___ DATE ___
CH DR ___ DATE ___
APPD ___ DATE ___
APPD ___ DATE ___

[redacted]

NOMENCLATURE: HUMAN AND MACHINE READABLE CODE FORMAT

SIZE	CODE IDENT NO.	DRAWING NUMBER
D	72314	1137-71 (7414)

SCALE: 4/1 FSN: SHEET OF